

## NOAA Teacher at Sea Jim Jenkins Onboard NOAA Ship MILLER FREEMAN April 18 - 30, 2005

Day 5: April 22, 2005 Latitude: 56, 28, 22 N Longitude: 160, 35, 21 W Cloud Cover: Cloudy Visibility: 6 Nautical Miles

Wind Direction: 164 Wind Speed: 20 Knots Sea Wave Height: 3-4 Feet Swell Wave Height: 2-3 Feet

Sea Water Temperature: 2.4 Degrees C

Barometric Pressure: 1011 MB

Science and Technology Log: How is visibility determined? This was the question I posed to Ensign Mandy Goeller. Her answer was that the



Fair Visibility

distance is 10 nautical miles if the viewer can see the horizon. Distance may also be ascertained if another vessel shows up on radar and can also be seen with the eye. Finally, there is a degree of intuitive thought based on experience when writing visibility in a ships log.

A CTD cast was done this morning. This involves having a winch lower a huge instrument (about the size of motorcycle) into the water until it is almost resting on the bottom. Salinity, temperature and density readings are done on the way down for the instrument. Readings done on the way up would involve taking readings on water which has been disturbed by the passage of the instrument.

This morning's reading was done for the benefit of The Kodiak Crab Lab (I bet you like that name!) in Kodiak, Alaska. One of the problems for king crab fishermen is that king crabs do not like to inhabit bands of cold water that stream through sections of the Bering Sea. Fishermen armed with knowledge of the location of these cold streams will likely not waste time, fuel and labor trying to catch crabs when the crabs are probably not going to be in the cold streams. NOAA is trying to help by supplying knowledge.

Retrieval of a mooring was scheduled for this morning. The boat arrived at the latitude and longitude at which the mooring was dropped off. A hydrophone (listening device attached to an electrical cord) was dropped into the water to listen for the device after a NOAA scientist sent it a signal to "wake up" and respond with a signal so that it could be located. The plan was to have an "acoustic release" sent to the mooring when it could be located. This signal would cause a metal latch located just above the anchor to open so that the mooring could rise to the surface, be spotted and be recovered. Unfortunately,

the mooring never sent a signal. The acoustic release signal was sent but the mooring did not pop to the surface as planned. The mooring appears to be lost!

I think it would be good to remember this the next time things do not go exactly as planned in our daily lives. Sometimes in science, as in all areas of human endeavor, things just do not go as planned.

The location of the lost mooring remains on file. Maybe it will be found in the future. Meanwhile, a mooring scheduled to be placed within a one third mile distance from the lost mooring was deployed as planned.

A second mooring was recovered as planned later in the day. This one was covered with huge barnacles and had a few life forms holding onto its surface. I took a few photographs of tiny crabs and worms which were found on this mooring. I held the crabs and worm in my hand for photographing so that you would have an idea of their size. I am thinking all the research you did on crabs before the trip may make it possible for you to identify the crab. Identifying the worm could be fun for someone!

Speaking of photos, I sent a number of photos to you today. Earlier, I had a problem with the size of files being too large to be sent by satellite to you. Please let me know what you think about the photographs.

## Personal Log:

I had breakfast this morning with Shawn Bowman, a young man wearing a Kings Point rugby shirt. Our conversation turned to rugby and I talked about one of our neighbors, Tom Levac, who is a student at The Merchant Marine Academy and also a rugby player. It turns out that Shawn is a graduate of the Merchant Marine Academy and played rugby with Tom. It is indeed a small world, isn't it?



The beautiful Alaskan terrain.

Had some time this morning just to walk around the deck and enjoy the beauty of the snow-capped peaks gracing coastal Alaska. This was a scene so beautiful that it was almost painful (You may not understand this at your stage in your life, but I bet that your parents will be able to tell you of a similar place. I was surprised when the people I was talking with when I described the beauty as being almost painful indicated that this was also the way they felt about this

place.) I very much hope that each of you will be able to visit this sparse, pristine, rugged and eternally beautiful part of the world.

Lt. Miller had his binoculars out looking for walrus on the shoreline this morning. There were none to be seen today. Maybe tomorrow?!

Question of the day: When are you guys going to send an e-mail!!!! (Very Big Grin!)